

WHAT IS CLAIMED IS:

1. A circuit board made of resin with pins, comprising:  
flat pins each including;

5 a rod portion having a diameter of not greater than  
0.35 mm, and

a concentric tabular large diameter portion having  
a larger diameter than that of the rod portion formed  
on one end of the rod portion,

10 the flat pins each being soldered to a pin bonding portion  
provided on the main surface of a board at the large diameter  
portion, wherein

the ratio (W/S) of the diameter of the large diameter  
portion to the rod portion is from not smaller than 2.16 to  
not greater than 2.67, if the diameter of the rod portion and  
15 the large diameter portion of the flat pin are S and W,  
respectively.

2. The circuit board made of resin with pins as defined in  
Claim 1, wherein

20 the ratio (T/S) of the thickness of the large diameter  
portion to the diameter of the rod portion is from not smaller  
than 0.40 to not greater than 0.67, if the thickness of the  
large diameter portion is T.

3. The circuit board made of resin with pins as defined in Claim 2, wherein

the ratio (W/S) of the diameter of the large diameter portion to the rod portion is from not smaller than 2.33 to  
5 not greater than 2.67, and

the ratio (T/S) of the thickness of the large diameter portion to the diameter of the rod portion is from not smaller than 0.40 to not greater than 0.54.

10 4. The circuit board made of resin with pins as defined in Claim 1, wherein

the formed thickness of the solder layer formed on the basis of the soldering is adjusted to be not greater than 0.30 mm along the vertical direction from the first main surface  
15 of the pin bonding portion toward the flat pin.

5. The circuit board made of resin with pins as defined in Claim 1, wherein

the flat pins are each made of a metal material containing  
20 at least copper.

6. The circuit board made of resin with pins as defined in Claim 1, wherein

a top portion of the concentric tabular large diameter  
25 portion is exposed from the solder layer.